The Clearwater Soil and Water Conservation District Jim Ford Creek Watershed Enhancement Project

The Jim Ford Creek Watershed Enhancement Project is highlighted this year because the project involves multiple effective methods to clean up water that has for many years been subject to agriculturally related pollution. The goal of the Clearwater Soil and Water Conservation District and sub-project agencies is to reduce nutrients, sediment, and bacteria loading to Jim Ford Creek. This is being achieved through the capture of fine sediment with riparian vegetation in the restored stream section. Stream bank stability improvements decrease sediment and absorb phosphorus. Filtering runoff by streamside vegetation reduces bacterial contamination, reduces soil erosion, conserves soil resources and decreases sediment delivery within the watershed.

Partners in this project include numerous farmers and ranchers, the Clearwater Highway District, the Natural Resources Conservation Service (NRCS), Idaho Soil Conservation Commission (ISCC) Ducks Unlimited, Idaho Department of Fish and Game (IDFG) and DEQ.

Water quality projects include riparian plantings that serve as a source of shade to cool the stream and a filtration zone for nutrients and bacteria as well as offering stream bank stabilization. The installation of many miles of fencing in key areas not only keeps livestock away from the stream banks, but also helps protect young seedlings from browsing by deer and elk. Other stream bank restoration measures include willow and shrub plantings and repaired meanders.

This project included installation of cattle guards and application of crushed aggregate to stretches of dirt roads that were previously contributing sediment to Jim Ford Creek. Installation of 34 culverts, installation of rock lining and armoring and hydroseeding are all BMPs that are slowing and controlling runoff eliminating gully washing, bank erosion, and storm water flow over the roadways.

The elimination of grazing within certain key areas, the relocation of a corral away from Jim Ford Creek and construction of an off-site watering pond are all examples of private land owner cooperation. Other cooperative major water quality protection measures include the relocation and construction of state-of-the-art confined animal feeding operations (CAFOs).

One of the Private landowner CAFO projects constructed during 2002 consists of two buildings with sidewalls. The purpose of this project is to retain all waste generated by 120 animals for the total calculated confinement period (October – May). This facility includes a concrete floor spanning the full length of both the feeding area as well as the solid waste stacking area. The full length of this facility has a raised border of no less than six inches. This facility is now being maintained by the rancher to ensure that all animal waste is contained within the facility and not allowed to enter surface or ground water.

A fence and a corral system were constructed within the CAFO complex to effectively manage the rotation and movement of the animals to reduce the impact of soil distribution and potential water quality problems. A pipeline now conveys water from the creek to a watering trough located within the feedlot as opposed to the previous arrangement of simply allowing livestock to enter the creek.

A series of bermed and fenced ditches created an effective roof runoff system. This system collects and transfers all clean, uncontaminated roof runoff from the feedlot site to a suitable infiltration area offsite. Some ditches consist of 6-inch perforated drain tile covered with filter cloth and drain rock. Open ditches are now fenced on both sides to prevent livestock access.

The total CAFO project cost was $131,482.53, including $58,515.11 paid by the landowner; $14,593.49 paid by the Department of Agriculture; and $58,373.93 paid through NPS grant funding.

A second similar but smaller CAFO consisting two buildings with sidewalls to properly manage the storage for a 30 cow/calf operation for the total confinement period from October through May is currently 90% complete. The facility is scheduled to be completed next summer, will also be managed to ensure the adjacent stream water quality will not be impaired.

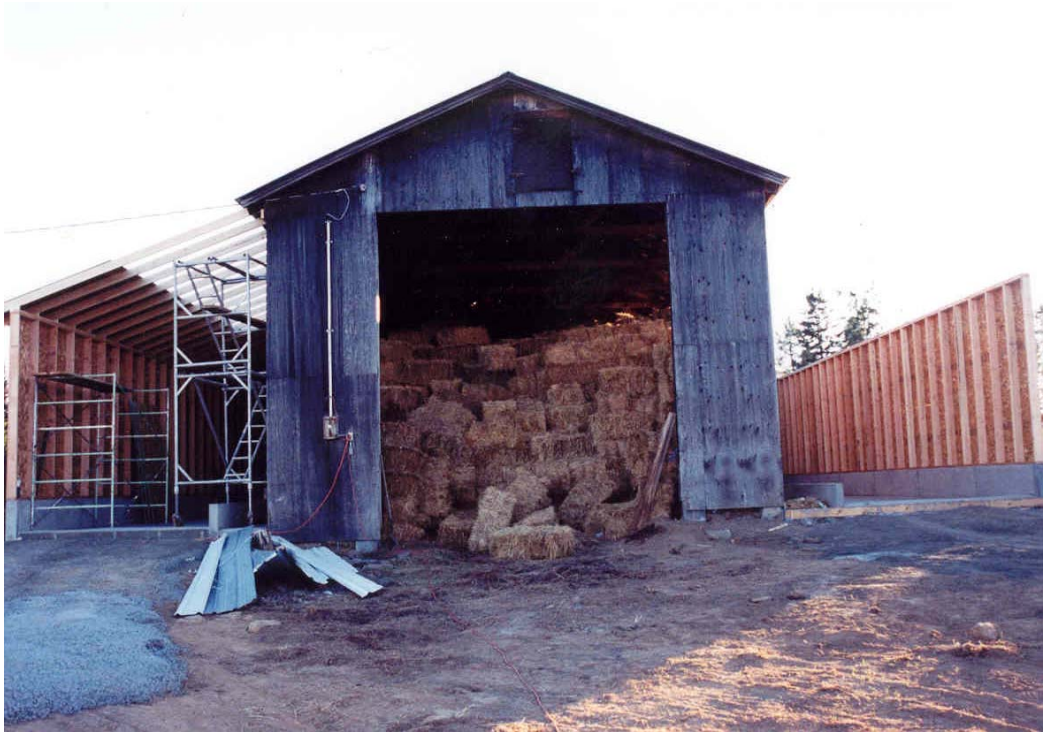
The following photographs were taken during the summer of 2002.

Clearwater Highway District, instillation of culverts on the Mussellshell Road.

Private Landowner confined animal feeding operation (CAFO)

Private Landowner CAFO

Private land owner CAFO being modified to greatly reduce sediment and other contaminant runoff



Some of the wildlife on a tributary to Jim Ford Creek benefiting from NPS work accomplished over the past several years